

Application No. 10/767,812

Docket No.: 65856-0055

**REMARKS**

Claims 1-45 are pending. Claims 1, 18, 28, and 41 are independent claims. In the Office Action, claims 1-11, 14-21, and 24-41 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over United States Patent Publication 2002/0027504 ("Davis") in view of United States Patent Publication 2003/0088346 ("Calkins"). Further, claims 12-13 and 22-23 were rejected under Section 103(a) as allegedly unpatentable over Davis in view of Calkins and further in view of United States Patent Publication 2003/0040873 ("Lesesky").

Claim 41 is amended herein. Claims 42-45 are newly added. For the reasons set forth below, all pending claims are believed to be in condition for allowance.

**I. Davis does not teach or suggest that "the first diagnostic step further comprises determining a number of messages received per second relating to the identifier" (Claim 41).**

Claim 41 recites that "the diagnostic step further comprises determining a number of messages received per second relating to the identifier." In addressing claim 7, which contains similar limitations, the Examiner conceded that Davis does not teach this limitation, but contended that Davis' deficiencies were compensated by Calkins. (Office Action, at 4.) However, Calkins teaches no more than sampling input channels at up to a specified bit rate. (Calkins, para. 49.) Calkins in no way teaches or suggests "determining a number of messages received per second," much less that the messages "relat[e] to the identifier." Moreover, the Examiner has cited no support in the prior art of record for the alleged motivation to combine Davis and Calkins of being able to "facilitate calculating error rates and determine whether or not a communication was lost," nor has the Examiner explained how such alleged motivation is relevant to claim 41, which does not recite "calculating error rates."

For at least these reasons, claim 41, as well as claims 42-45 depending therefrom, are in condition for allowance.

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**II. Davis does not teach or suggest “analyzing communications . . . to determine the condition of communications . . .” (Claims 1 and 41)**

Claims 1 and 41 each recite in part “performing a diagnostic step comprising analyzing communications received from the communications bus to determine the condition of communications with respect to the component.” The Examiner contended that Davis (para. 66) teaches this claim limitation. (See Office Action, at 3.) However, Davis teaches no more than that “[a]ny failures [of a device] to communicate with the applications server 110 are also logged into the appropriate database.” (Davis, para. 66.) Davis is absolutely silent with respect to “analyzing communications . . . to determine the condition of communications,” as is required by Applicants’ claims. Davis provides no teaching or suggestion of any analysis of received communications, nor does Davis provide any teaching or suggestion concerning determining the condition of communications.

For at least the foregoing reasons, claims 1 and 41, as well as claims 1-17 depending from claim 1, are in condition for allowance.

**III. The prior art of record lacks motivation to combine Davis and Calkins.**

All claims stand rejected over some combination of prior art including Davis and Calkins. The Examiner conceded that Davis does not teach a communications bus as required by each of independent claims 1, 18, 28, and 41, but contended that Calkins makes up for Davis’ acknowledged deficiencies.<sup>1</sup> However, there is no motivation in the prior art of record for one of ordinary skill in the art to have combined Davis and Calkins. All pending claims are allowable over the proposed combination of Davis and Calkins for at least this reason.

The Examiner contended that the modification of Davis with Calkins’ alleged teaching of a communications bus would have been obvious “because a communications bus, which is commonly used in vehicle testing, would have allowed the skilled artisan to transmit and receive data regarding

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<sup>1</sup> Davis mentions “an industry standard [for connecting household systems], known as the Consumer Electronics Bus” (Davis, para. 4), that clearly has nothing to do with the communications bus recited in Applicants’ claims. Further, Davis mentions that his “automated monitoring system 100 may be employed to . . . transfer vehicle diagnostics from an automobile via a wireless transceiver integrated with the vehicle diagnostics bus to a local transceiver that further transmits the vehicle information through a local gateway onto a WAN.” (Davis, para. 75; cited in the Office Action, at 5.) Thus, Davis teaches at most downloading data from a vehicle’s communications bus and then transmitting that data through several elements, including a WAN.

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the vibration or noise of the vehicle under test.” (Office Action, page 3.) However, this alleged motivation to combine Davis and Calkins is irrelevant to Applicants’ claims, which recite diagnosing communications received over a vehicle bus, and not “vehicle testing” or putting a vehicle under test. Even less relevant to Applicants’ claims is the benefit, allegedly taught by Calkins, of using a communications bus to detect vehicle noise or vibration. The Examiner has provided no explanation, and indeed none can be found, as to how this alleged benefit would have motivated one of ordinary skill to “perform a diagnostic step” concerning a communications received from a communications bus, as is required by each of Applicants’ independent claims. For at least this reason, the Section 103 rejection of all pending claims should be withdrawn.

Moreover, the Examiner provides no support in the prior art of record for the proposition that “a communications bus . . . is commonly used in vehicle testing.” To the extent that the Examiner has taken Official Notice that “a communications bus . . . is commonly used in vehicle testing,” Applicants hereby seasonably challenge the Official Notice taken by the Examiner. See 37 CFR 1.104(d)(2) and MPEP § 2144.03. Therefore, the Examiner is required to produce documentary proof as evidence of the Official Notice in response to this communication. In the event that the Examiner does not produce documentary proof, it is respectfully suggested that the rejection should be withdrawn for at least this reason.

Further, Calkins provides absolutely no teaching or suggestion concerning testing a communications bus or diagnosing messages received over a communications bus. Calkins teaches no more than an analyzer that “is designed to aid in the quick identification and isolation of noise, vibration, and harshness faults in vehicles.” (Calkins, para. 11.) The mere fact that Calkins mentions a communications bus in no way teaches or suggests “performing a diagnostic step comprising analyzing communications received from the communications bus” (claims 1 and 41), “performing a diagnostic step comprising determining whether a message that contains the identifier has been received from the communications bus within a specified period of time” (claims 18 and 41), or “performing at least one CAN message check comprising determining whether a CAN message has been received from the communications bus” (claims 28 and 41).

For at least the foregoing reasons, all pending claims are in condition for allowance.

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**IV. Applicants' dependent claims are separately patentable.**

Applicants reserve the right to argue for the separate patentability of their dependent claims in future papers. By way of example and without limitation, certain of Applicants' dependent claims are separately patentable for the reasons set forth below.

**A. Claims 3, 21, 39, and 42**

Claims 3, 21, 39, and 42 each recite that "the computer is a component controller." The Examiner contended (Office Action, page 4) that Davis' "site controller" meets the limitations of the recited "component controller." (See Davis, para. 23.) As explained in Applicants' Specification, a component controller is a computer known to those skilled in the art that is used to control one of a variety of components. (Specification, para. 18.) Certain embodiments of the claimed invention take advantage of unused processing and/or memory capacity in a pre-existing component controller to provide the functionality of the claimed invention. (Id.) Davis' site controller, on the other hand, is clearly a separate computing device included in Davis' system for various purposes, including managing the transmission of messages from sensors and analyzing sensor data. (Davis, para. 26.) Applicants do not believe that Davis teaches or suggests any embodiment lacking the disclosed site controller. (See, e.g., id., Figs. 1-3, 7.) Certainly Davis does not teach or suggest that "the computer is a component controller" as is required by Applicants' claims. For at least these reasons, claims 3, 21, 39, and 42 are separately patentable.

**B. Claim 7**

Claim 7 is separately patentable at least for the reasons discussed above regarding claim 41.

**C. Claims 29, 31, and 43**

Claim 29 recites "determining whether a specified time exceeds an elapsed period of time between performance of a first CAN message check in which a CAN message was detected containing data and a second CAN message check in which a CAN message was detected not containing data." Claim 31 similarly recites "determining whether a specified time exceeds an elapsed period of time between performance of a first CAN message check in which a CAN message was detected containing data and a second CAN message check in which a CAN message was detected containing data." Claim 43 contains similar limitations. The Examiner contended that

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Davis teaches these limitations. (Office Action, at 6.) However, the cited portion of Davis says absolutely nothing at all about “performance of a . . . message check,” as is required by Applicants’ claims, but rather states that “[w]hen sending command messages, the site controller 150 expects an acknowledgement to each command.” (Davis, para. 64.) Accordingly, Davis teaches taking certain actions after a specified time period has elapsed following a command message. Davis makes no teaching or suggestion of sending first and second message checks, much less of determining whether or not a message contained data. For at least these reasons, claims 29, 31, and 43 are separately patentable.

**D. Claims 30 and 44**

Claims 30 and 44 each require “determining whether a link open condition exists.” The portion of Davis alleged by the Examiner to teach this limitation (Office Action, at 7) in fact teaches no more than “determin[ing] the status of the wireless communication device.” (Davis, para. 56.) Claim 30, in contrast, requires not determining the status of a device, but rather required determining whether a link open condition exists. For at least these reasons, claims 30 and 44 are separately patentable.

**E. Claims 32, 33, and 45**

Claims 32, 33, and 45 each require “determining whether a link shorted condition exists.” The portion of Davis alleged by the Examiner to teach this limitation (Office Action, at 7) in fact teaches no more than “including a preface and a postscript in a data message, and has nothing at all do to with determining a link shorted condition. (Davis, para. 52.) For at least these reasons, claims 32, 33, and 45 are separately patentable.

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**CONCLUSION**

For the foregoing reasons, all pending claims are believed to be in condition for allowance. If the Examiner disagrees or if the Examiner believes that any formal matters require attention, the Examiner is cordially invited to telephone the undersigned.

Applicants believe that a fee of \$200.00 is due with this response. For this fee, and any other fee that may be due, please charge our Deposit Account No. 18-0013, under Order No. 65856-0055, from which the undersigned is authorized to draw.

Dated: January 17, 2006

Respectfully submitted,

By 

Charles A. Bieneman

Registration No.: 51,472

Michael B. Stewart

Registration No.: 36,018

RADER, FISHMAN &amp; GRAUER PLLC

39533 Woodward Avenue, Suite 140

Bloomfield Hills, Michigan 48304

(248) 594-0600

Attorneys for Applicant

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